

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: TOLMAN POND	Lake Area (ha):	15.50
Town: NELSON	Maximum depth (m):	3.9
County: Cheshire	Mean depth (m):	2.4
River Basin: Merrimack	Volume (m ³):	364000
Latitude: 42°58'28" N	Relative depth:	0.9
Longitude: 72°06'27" W	Shore configuration:	1.15
Elevation (ft): 1450	Areal water load (m/yr):	4.45
Shore length (m): 1600	Flushing rate (yr ⁻¹):	1.90
Watershed area (ha): 120.6	P retention coeff.:	0.68
% watershed ponded: 0.0	Lake type:	natural

BIOLOGICAL:

25 February 2003

7 August 2002

DOM. PHYTOPLANKTON (% TOTAL)	#1	ASTERIONELLA 50%	ASTERIONELLA 20%
	#2	TABELLARIA 25%	TABELLARIA 20%
	#3		MICROCYSTIS 15%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			2.20
DOM. ZOOPLANKTON (% TOTAL)	#1	NAUPLIUS LARVA 34%	CLADOCERAN SPP. 31%
	#2	CALANOID COPEPOD 30%	CALANOID COPEPOD 28%
	#3		NAUPLIUS LARVA 17%
ROTIFERS/LITER		30	<1
MICROCRUSTACEA/LITER		114	474
ZOOPLANKTON ABUNDANCE (#/L)		161	553
VASCULAR PLANT ABUNDANCE			Scattered
SECCHI DISK TRANSPARENCY (m)			2.7
BOTTOM DISSOLVED OXYGEN (mg/L)		5.4	7.9
BACTERIA (E. coli, #/100 ml)	#1		1
	#2		< 1
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: TOLMAN POND

Town: NELSON

	25 February 2003		7 August 2002		
DEPTH (m)	1.5		1.0		3.0
pH (units)	6.0		6.4		6.8
A.N.C. (Alkalinity)	5.3		3.3		3.6
NITRATE NITROGEN	< 0.05		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.40		0.40		0.30
TOTAL PHOSPHORUS	0.011		0.015		0.015
CONDUCTIVITY (μ mhos/cm)	40.3		33.1		32.7
APPARENT COLOR (cpu)	13		13		13
MAGNESIUM			0.83		
CALCIUM			1.5		
SODIUM			3.2		
POTASSIUM			0.60		
CHLORIDE	4		4		3
SULFATE	5		4		4
TN : TP	36		27		20
CALCITE SATURATION INDEX			4.2		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 2002

D.O. S.D. PLANT CHL TOTAL CLASS

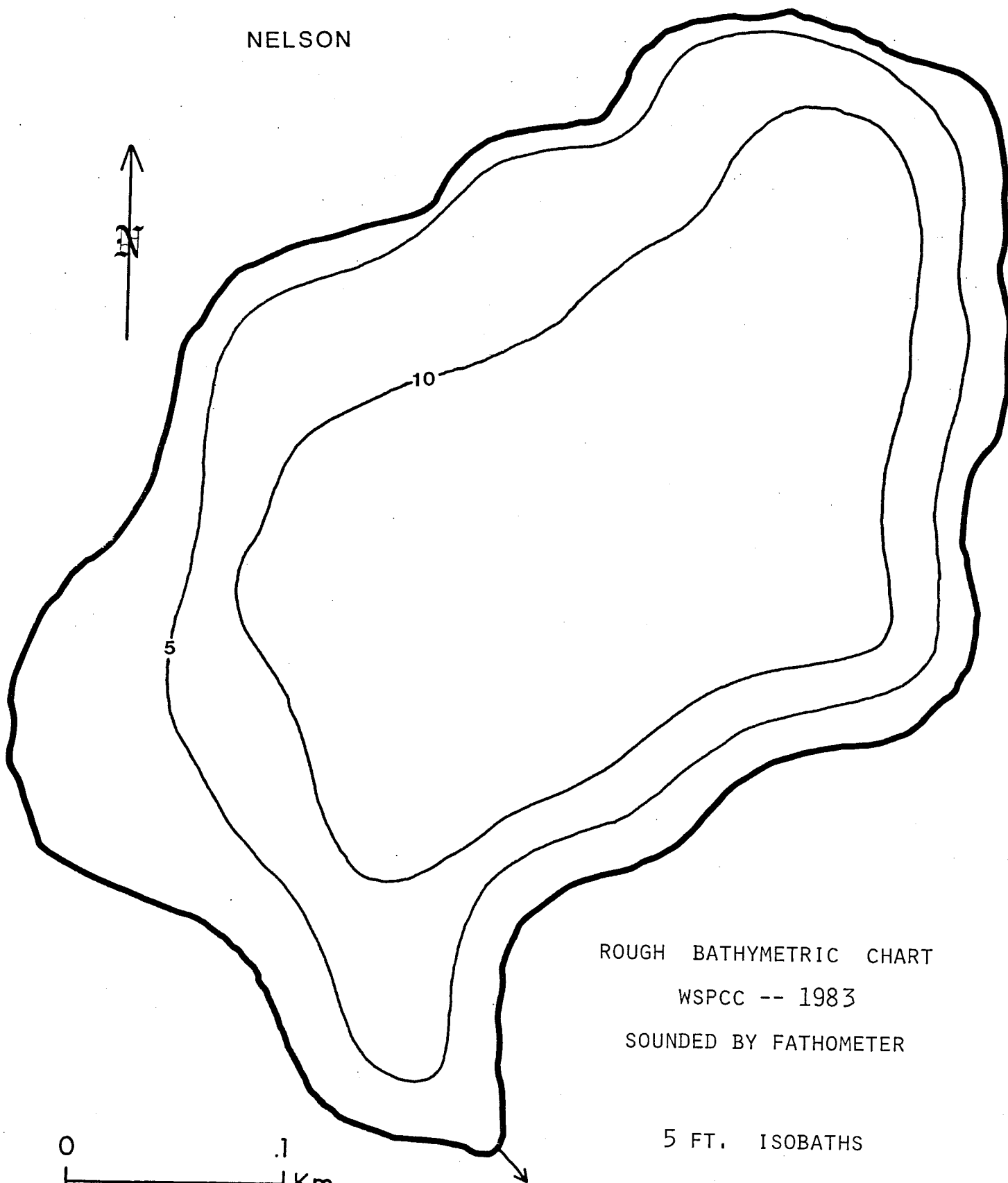
**	3	1	0	4	Oligo.
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COMMENTS:

1. No motor boats allowed.
2. Previously surveyed in 1983 and a participant in VLAP since 1998.
3. Not re-sounded in 2002. Enclosed bathymetric map is from the 1983 survey.
4. No public boat launch site.
5. Most of the lake shore is undeveloped; approximately three year-round homes across the road and a few summer camps; campsites were located along the southwest shore.

TOLMAN POND

NELSON



ROUGH BATHYMETRIC CHART

WSPCC -- 1983

SOUNDED BY FATHOMETER

5 FT. ISOBATHS

0 .1 Km.

FIELD DATA SHEET

LAKE: TOLMAN POND TOWN: NELSON
DATE: 08/07/2002 WEATHER: Humid, 60-70, 10-15 mph

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[illegible]

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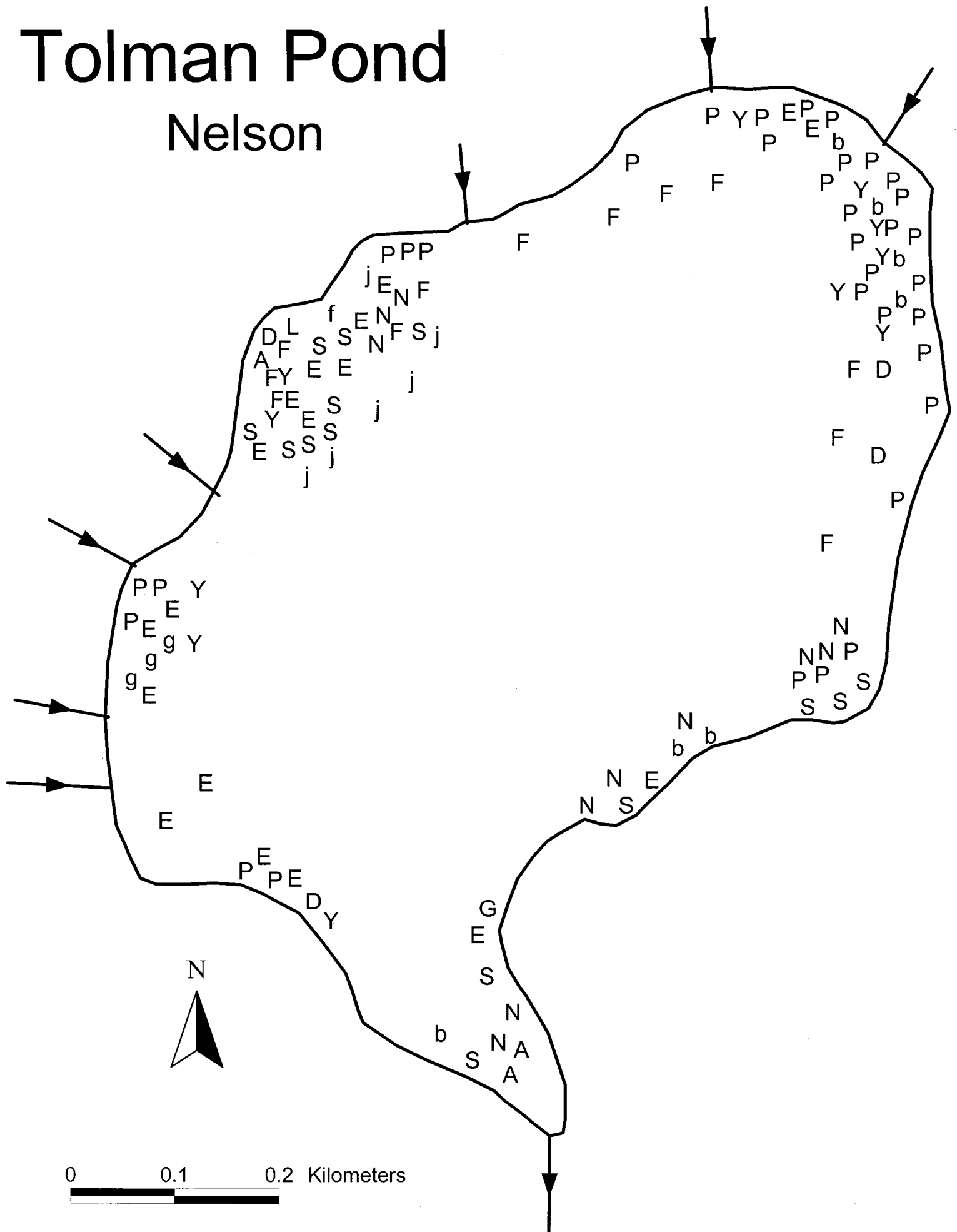
BOTTOM DEPTH (m):		3.2	COMMENTS:

TIME: 1216

*Dissolved oxygen values are in mg/L

Tolman Pond

Nelson



[illegible]